

Amendments to the Claims

This listing of claims will replace all prior listings of claims in the application:

1. (Currently amended) A method for producing a support containing polymeric receptors for determining analytes, comprising the steps of

(a) providing a support, ~~comprising wherein said support~~ comprises a support body, comprising at least one channel, ~~comprising which comprises~~ a ~~fluid-tight~~ conduit with a top, a bottom and two sides having an inlet and an outlet for passing fluid from the inlet to the outlet, and at least one reaction position in the support body, wherein said support is optically transparent at least in the region of said at least one reaction position,

(b) placing said support body between a programmable light source matrix and a detector matrix,

~~(b)~~ (c) passing liquid with building blocks for synthesizing said polymeric receptors through the channel or channels of the support body,

~~(c)~~ (d) site- and/or time-specifically immobilizing ~~the~~ receptor said building blocks ~~in each case~~ on predetermined reaction positions in the channel or channels by illumination ~~and~~

of said predetermined reaction positions by said programmable light source matrix, wherein the illumination position of said light source matrix is monitored by computer using said detector matrix, and

~~(d) (e) repeating steps (b) and (c) and (d) until the required said polymeric receptors have been synthesized in each case on the predetermined positions, wherein the synthesis process is being monitored and wherein the support is optically transparent at least in the region of the reaction positions and is arranged between a programmable light source matrix and a detector matrix.~~

2. (Currently Amended) The method as claimed in claim 1, ~~characterized in that~~ wherein said method produces a support which comprises defined areas ~~with, in each case, of which contains~~ identical receptor species, ~~is produced.~~

3. (Currently Amended) The method as claimed in claim 1 ~~characterized in that the~~ wherein said channels are arranged on ~~at least one the surface of said support surface.~~

4. (Currently Amended) The method as ~~claim~~ claimed in claim 1 ~~characterized in that the~~ wherein said support comprises several

~~hundreds of~~ hundred channels per ~~chip~~ support body which are
~~preferably~~ arranged parallel to one another.

5. (Currently Amended) The method as ~~claim~~ claimed in claim 1
~~characterized in that the~~ wherein said polymeric receptors are
selected from the group consisting of nucleic acids and nucleic
acid analogs.

6. (Currently Amended) The method as ~~claim~~ claimed in claim 5,
~~characterized in that the receptor~~ wherein said building blocks
are selected from the group consisting of nucleotides,
oligonucleotides, nucleotide analogs and oligonucleotide analogs.

7-8. (Canceled).

9. (Previously Presented) The method as claimed in claim 1
characterized in that the illumination takes place via a
programmable light source matrix.

10. (Previously Presented) The method as claimed in claim 1
characterized in that the pattern of polymeric receptors is
determined by computer programming.

11. (Previously Presented) The method as claimed in claim 1 characterized in that the support is used for determining analytes in a sample.

12-33. (Canceled).

34. (Currently Amended) The method ~~for producing a support for determining analytes~~ as claimed in claim 1, wherein said at least one channel is a capillary channel.

35. (Currently Amended) The method ~~for producing a support for determining analytes~~ as claimed in claim 1, wherein ~~each of~~ said at least one channel ~~channels~~ contains a plurality of said ~~different~~ polymeric receptors.

36. (Currently Amended) The method ~~for producing a support for determining analytes~~ as claimed in claim 1, wherein ~~each~~ said at least one channel provides a three dimensional surface area for synthesis of said polymeric receptors.